

Claims

- [c1] What is claimed is:
1. A scanning device comprising:
 - a first light source for generating light;
 - a second light source for generating light;
 - a photosensor for detecting light generated by the first light source and the second light source and then by way of a document; and
 - a controller for controlling the operation of the scanning device;wherein a warm-up time period of the first light source is longer than a warm-up time period of the second light source.
 - [c2] 2. The scanning device of claim 1 wherein the first light source is a cold cathode fluorescent lamp (CCFL).
 - [c3] 3. The scanning device of claim 1 wherein the second light source is a white-light light emitting diode (LED).
 - [c4] 4. The scanning device of claim 1 wherein the photosensor is a charge coupled device (CCD).
 - [c5] 5. The scanning device of claim 1 wherein the scanning device is a flat bed scanner, a document fed scanner, a

copier, a Fax machine, or a multi-function product (MFP).

[c6] 6. The scanning device of claim 1 wherein the first light source and the second light source are installed within a scanning module of the scanning device.

[c7] 7. A method of scanning a document with a scanning device, the scanning device comprising a first light source for generating light, a photosensor for detecting light generated by the first light source and then by way of the document, and a controller for controlling operations of the scanning device, the method comprising:
providing a second light source;
enabling both the first light source and the second light source after enabling the scanning device;
scanning the document using the second light source while the first light source is being heated; and
scanning the document using both the first light source and the second light source to shorten the exposure time of the photosensor when the first light source is heated;
wherein a warm-up time period of the first light source is longer than a warm-up time period of the second light source.

[c8] 8. The method of claim 7 wherein the first light source is a cold cathode fluorescent lamp (CCFL).

- [c9] 9. The method of claim 7 wherein the second light source is a white-light light emitting diode (LED).
- [c10] 10. The method of claim 7 wherein the photosensor is a charge coupled device (CCD).
- [c11] 11. The method of claim 7 wherein the scanning device is a flat bed scanner or a paper fed scanner.
- [c12] 12. The method of claim 7 wherein the first light source and the second light source are installed within a scanning module of the scanning device.
- [c13] 13. A multi-function product comprising:
a scanning device comprising:
a first light source for generating light;
a second light source for generating light;
a photosensor for detecting light generated by the first light source and the second light source and then by way of a document; and
a controller for controlling the operations of the scanning device; and
an operations pad connected to the controller, the operations pad having a control button; wherein when the control button is triggered, the controller causes only the second light source to be enabled to scan the document; wherein a warm-up time period of the first light source

is longer than a warm-up time period of the second light source.

[c14] 14. The multi-function product of claim 13 wherein the operations pad further comprises a start button, and when the start button is pressed the controller turns on the first light source and the second light source simultaneously and utilizes the first light source and the second light source to scan the document to shorten the scanning time period.

[c15] 15. The multi-function product of claim 13 wherein the first light source is a cold cathode fluorescent lamp (CCFL).

[c16] 16. The multi-function product of claim 13 wherein the second light source a white-light light emitting diode (LED).

[c17] 17. The multi-function product of claim 13 wherein the photosensor is a charge coupled device (CCD).